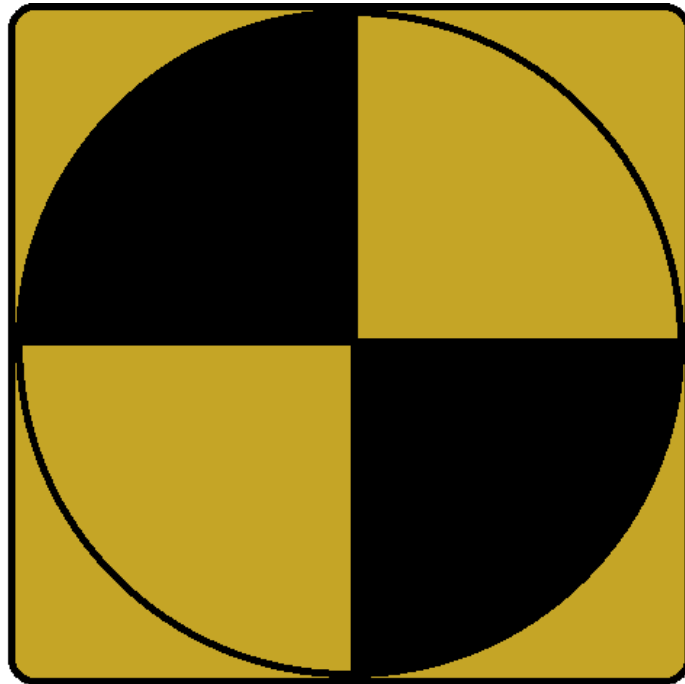


# TraumaHawk

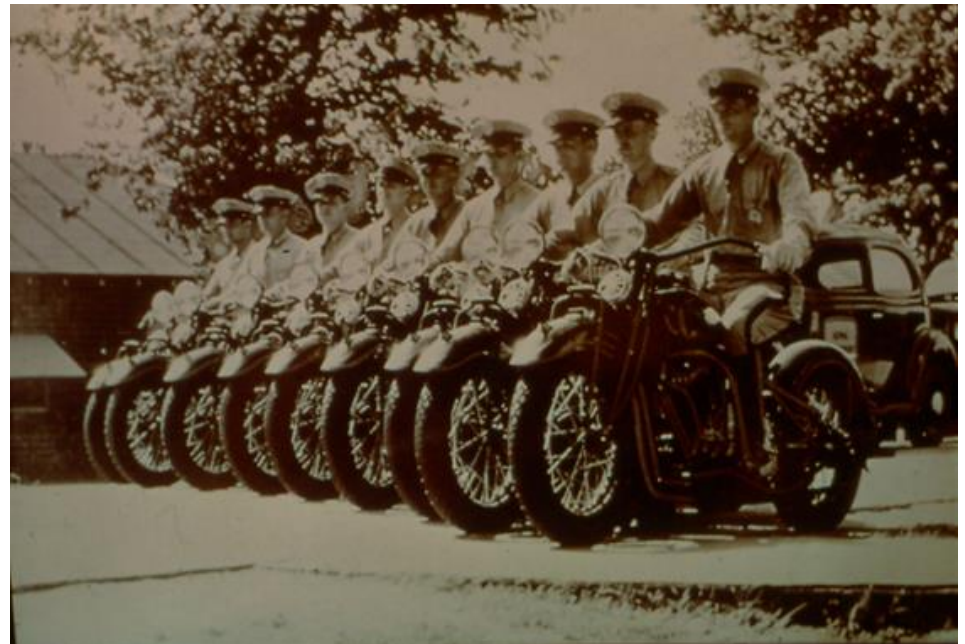
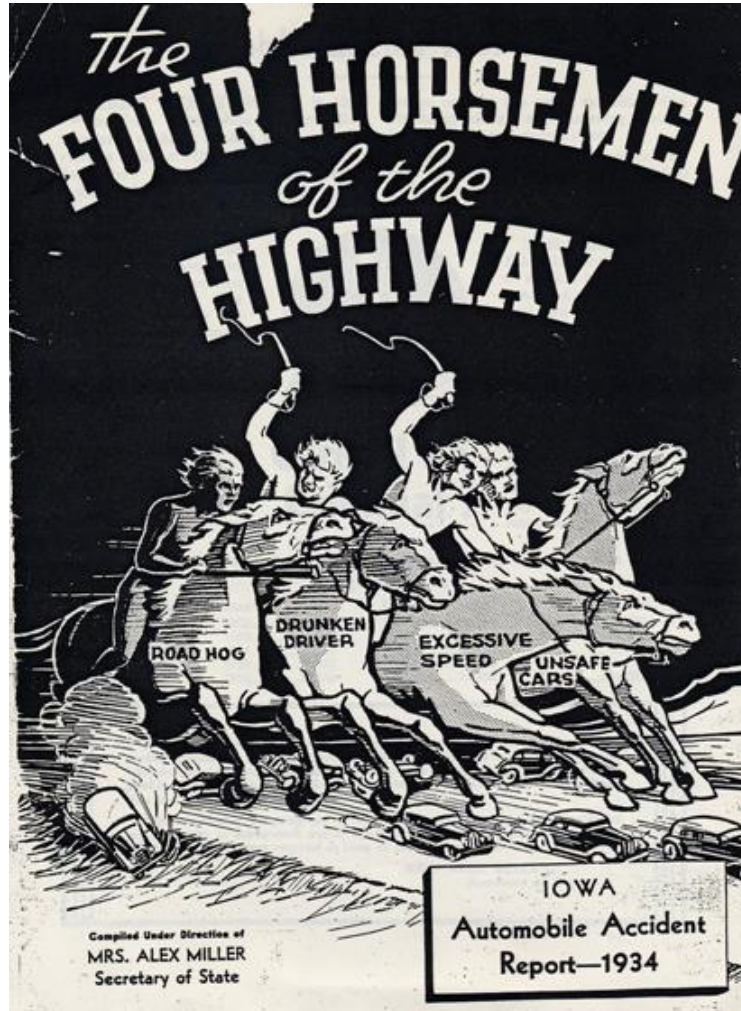


# TraumaHawk





# The Iowa State Patrol



# The Iowa State Patrol

Ola Babcock Miller's motto for the patrol was "**Save Lives First.**" This still serves as the primary foundation of the Iowa State Patrol's enforcement efforts.



# Zero Fatalities

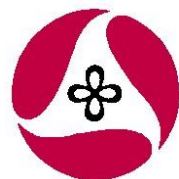
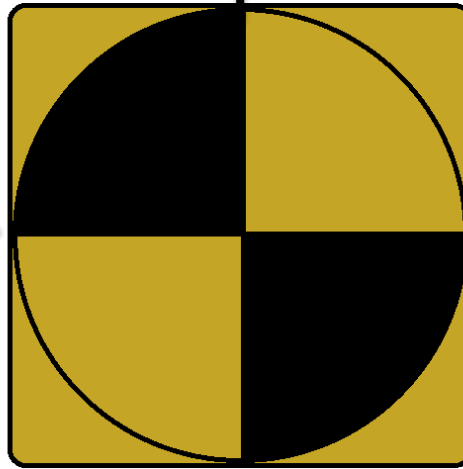
“Having no traffic fatalities on Iowa roads may sound like an unattainable goal but when you think about the goal you have for your family it’s always going to be zero fatalities”

-Governor Branstad

# Traffic Fatalities

- How do we prevent traffic fatalities?
  - Enforcement and education
  - Engineering
    - Better roadways
    - Better built cars
  - Trauma treatment after the accident

# TraumaHawk



**Iowa Department  
of Transportation**



# TraumaHawk

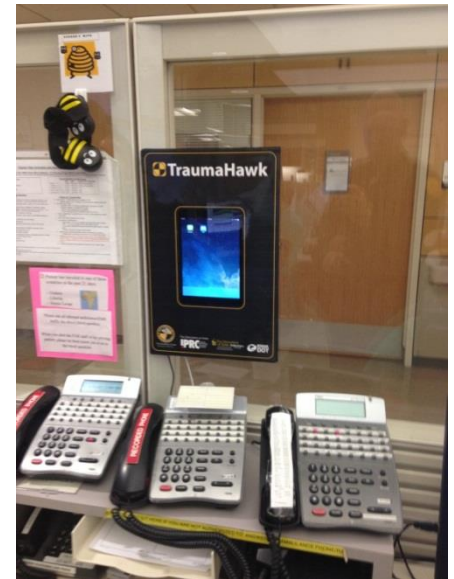
TraumaHawk is a cell phone application that connects first responders at the scene of motor vehicle collision to the trauma team at the hospital.



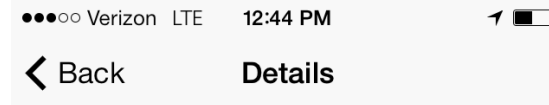


# TraumaHawk

TraumaHawk allows the first responders in the field to quickly generate a report that includes vital collision information along with photographs of the vehicle damage and transmit that report to the emergency room.



# TraumaHawk



Available  
hospitals



View existing  
reports



New Report



Delete all  
reports



Access  
settings

Nov 06, 2014 12:44 PM

<input type="checkbox"/>	Frontal	<input type="checkbox"/>	Side
<input type="checkbox"/>	Rollover	<input type="checkbox"/>	Rear-End

Number of Occupants:

0



Change Hospital

University of Iowa Hospitals and Clinics

Distance: 37.73 km

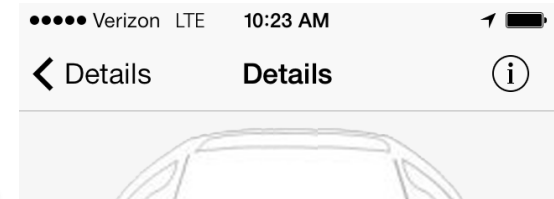
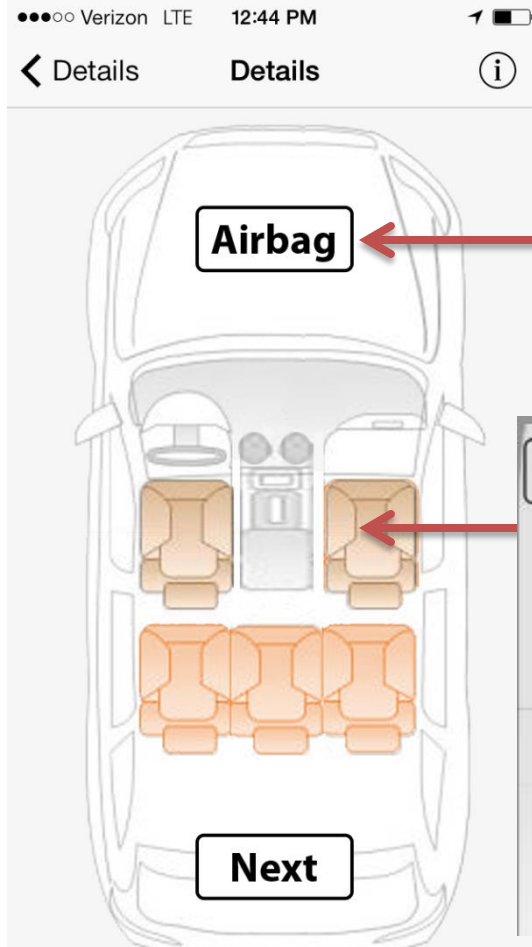
Next

Type of collision

Number of  
occupants

Distance  
from hospital

# TraumaHawk



Select All That Apply:

- ☐ Steering Column
- ☐ Front Passenger
- ☐ Side Airbag: Driver's Side
- ☐ Side Airbag: Passenger's Side
- ☒ No Airbag Deployed

Done



# TraumaHawk

●●○○ Verizon LTE 12:44 PM

< Details Photos ⓘ

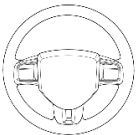
Choose the area to photograph



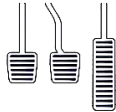
Front View



Driver's Side



Steering Column



Floorboard



Rear View



Passenger's Side

**Submit**



●●○○ Verizon LTE 12:46 PM

< Photos Steering Column Edit



Tap the 'Camera' button to take a photo of the steering column from the driver's side. Tap the 'Edit' button to mask faces.

**Help**

**Camera**

# TraumaHawk

Crash ID: Trauma0f607206072014

**Crash location:**

City: Cedar Rapids, State: IA

Latitude: 41.965870, Longitude:  
-91.739433

**Crash Type:** front

There are 0 images attached:

There are 2 occupants.

**Occupancy and Seatbelt details:**

Driver occupied: Yes, belted: Yes

Front Passenger occupied: Yes,  
belted: No

Rear driver-side occupied:

Occupied?, belted: Belted?

Rear center occupied: Occupied?,  
belted: Belted?

Rear passenger-side occupied:

Occupied?, belted: Belted?

**Airbag status:**

No airbag deployment reported

**Submitted by:** Kory Reule

**Contact phone number:** 515-509-  
7585

# Benefits

- Early notification for trauma team
- Anticipate types of injuries
- More information to diagnose injuries
- Better utilization of hospital resources



# Early Notification

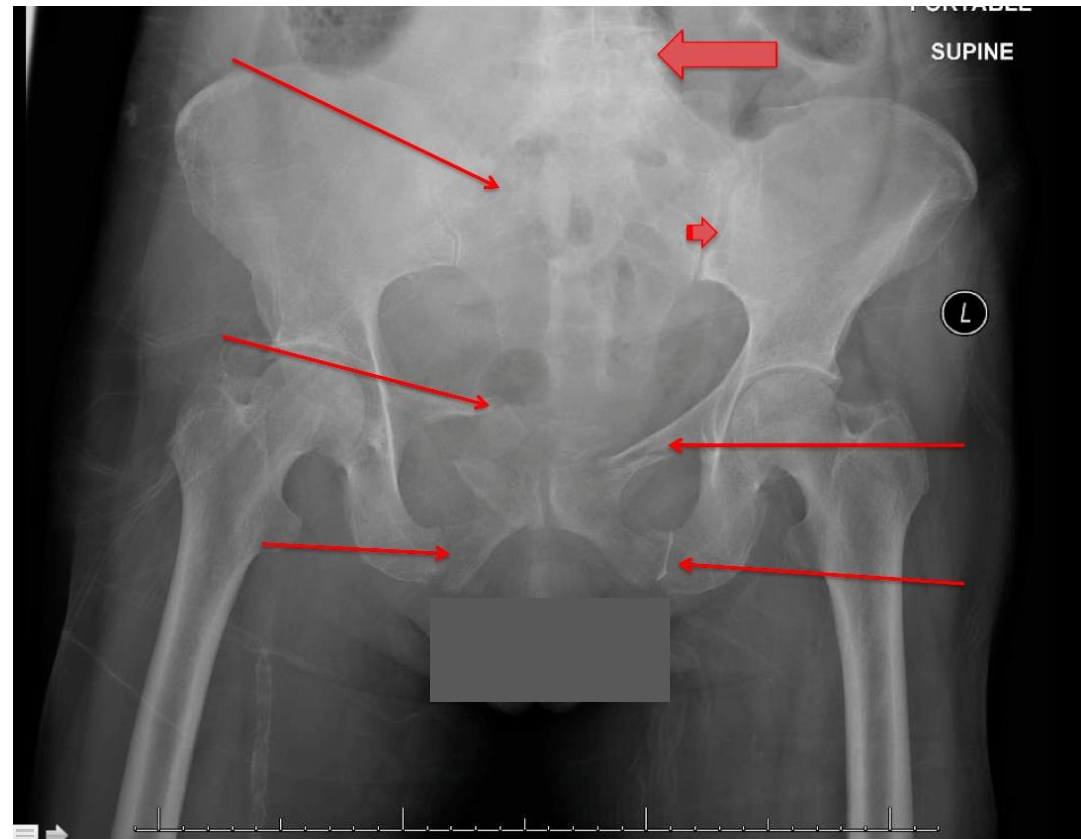
- Allows team time to assemble
  - How many and what kind of staff members are going to be needed?
  - What supplies are needed?



# Anticipated Injuries



# Anticipated Injuries





# Anticipated Injuries



What kind of injuries  
can you expect the  
driver to have?

Bent steering wheel

No more leg room

# Injuries

- Patients cant always tell us where it hurts



- **Ankle injury?**
- **Lymphedema?**
- **Circulatory problem?**

# Injuries

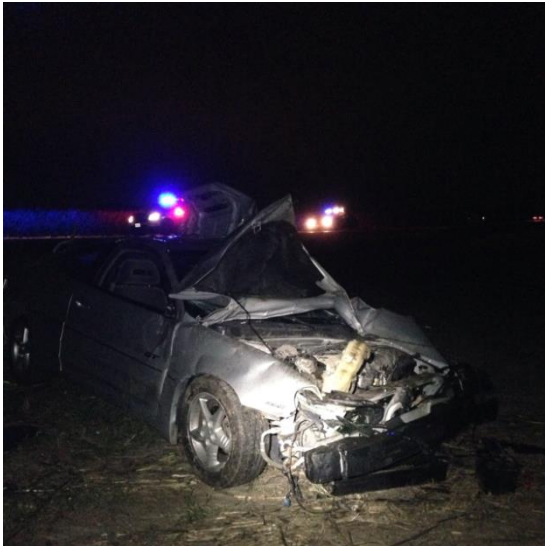


+



# Better use of hospital resources

- How serious was the crash?
- Does the patient need to stay?



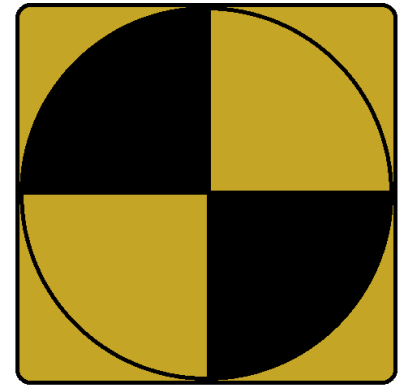


# Better use of hospital resources





**FirstNet™**



- TraumaHawk is still in the testing phase. If the current trend continues it is likely to expand.
- Fast and reliable networks will guarantee timely delivery of reports of large file size.

# Questions?



## **Daniel V. McGehee, PhD**

Director, Human Factors and Vehicle Safety  
Research Program Adjunct Professor, Mechanical  
& Industrial Engineering, Occupational Health  
and Emergency Medicine

daniel-mcgehee@uiowa.edu

<http://ppc.uiowa.edu/human-factors/study/traumahawk>